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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO.  |
|---|-------------|----------------------|---------------------------|-------------------|
| 09/991,378  | 11/21/2001  | Mark W. Miles        | 01568-006003              | 4461              |
| 26161   | 7590        | 04/20/2004           | EXAMINER<br>WARD, AARON S |                   |
| FISH & RICHARDSON PC<br>225 FRANKLIN ST<br>BOSTON, MA 02110 |             |                      | ART UNIT<br>2675          | PAPER NUMBER<br>8 |

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/991,378

**Applicant(s)**

MILES, MARK W.

**Examiner**

Aaron S. Ward

**Art Unit**

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20,25,26,28,32,33 and 40-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20,25,26,28,32,33 and 40-71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 20, 32, 33, 46, 55-58, 61, 64-69 and 71 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Miles, U.S. Patent No. 5,835,255.

As to claims 20, 65-67 and 69, Miles '255 teaches a personal electronic product and method (Fig. 1) including a surface/housing 20 exposed for viewing in use, an electronically controllable active display area 22 on the surface including an array of interference modulators of light (Fig. 2) enabling display of graphical images of saturated color/selectable appearances to a user, control elements 52 that provide a control portion of the interactive graphical user interface in accordance with a user's selections whose appearance is noticeable separate from the active display information, and a controller 26 connected to the display and control elements to control the graphical user interface/appearance/other functions.

As to claim 32, the array also provides information.

As to claim 33, the display elements comprise other light modulation devices.

As to claim 46, Miles '255 teaches a portion of the surface 20 includes a component 34 incorporated on the surface in which the active display area 22 is on.

As to claim 55, the array 22 spans a substantial portion of the surface 20.

As to claims 56, 57 and 58, the appearance includes decorative images (Fig. 1), areas of variable color/brightness, and an interface 26, 52 that enables the user to determine which appearance is selected.

As to claim 61, the surface 20 comprises a surface of a household appliance (e.g., display of a television).

As to claim 64, a portion of the surface in which the active display area is on is separate.

As to claim 68, Miles '255 teaches a consumer product (Fig. 1) including a surface 20 exposed for viewing by a user in use, an electronically controllable active display area 22 on the surface, an element 32 (Fig. 2) that performs a function for a user of the device (i.e., displaying), and a controller 26 that causes the display to impart an appearance that varies based on state of use noticeable to the user separately from display information.

As to claim 71, Miles '255 teaches a method of or use with a product that includes an array of interference modulators 22 of light on a surface 20 of the product (Fig. 1) including performing non-data processing operation/use having a condition that changes in the course of operation/use (i.e., displaying non-data image), detecting the occurrence of a change in the condition (i.e., responsive to a particular electrical condition; col. 2, lines 15-16), selecting one of at least two different appearances to indicate the occurrence (changing the image), and controlling (via controller 26; Fig. 1) the array of interference modulators 22 to impart the appearance.

2. Claim 63 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yamamori et al., U.S. Patent No. 5,355,357.

Yamamori et al. teaches a product including a housing 132 (Fig. 1) exposed for viewing in use, an electronically controllable active display area 133 on the surface including a substantial portion of the surface of housing 132 capable of effecting different selectable

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appearances to the surface noticeable to the user (i.e, when reading out information from the compact disc), a sensor 2 for determining product usage state, a controller 110 connected to the display area for selecting appearances, an interface 112 that enables user control of appearances, wherein information about appearances is received from an external source (e.g., the compact disc).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles '255 as applied to claim 71 above, and further in view of Cordova, Jr., U.S. Patent No. 5,526,327.

Miles '255 teaches the invention as claimed in claim 71, but does not specifically teach that the surface comprises a face of a time keeping device or motor vehicle.

Cordova teaches a spatial displacement time display using any visually perceptible medium capable of changing light intensity or color, for use on a time keeping device or motor vehicle (Fig. 7).

It would be obvious to combine the teaching of Miles '255 and Cordova because Cordova calls for a visually perceptible medium and Miles '255 provides a visually perceptible medium.

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One of ordinary skill in the art would be motivated to make the combination because Miles '255 teaches a visually perceptible medium capable of changing light intensity/color, and Cordova requires such a medium to effectively display time.

5. Claims 26, 28, 40-45, 47, 50-54 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles '255 as applied to claims 20, 68 and 69 above, and further in view of Mott, U.S. Patent No. 5,500,635.

As to claims 26 and 28, Miles '255 teaches the product as claimed in claims 68 and 69, but does not specifically teach that the surface is of an article of clothing or sporting good.

Mott teaches a product including an information display device (see abstract) whose surface includes an article of clothing/sporting good (e.g., athletic shoe 210).

It would be obvious to combine the references because Miles '255 teaches an information display, and Mott requires an information display. One of ordinary skill would be motivated to make the combination because the Miles '255 display provides easily visible saturated colors, and Mott teaches that the display should be easily visible when running/jogging (col. 11, lines 13-20).

As to claim 40, Mott teaches that product includes a sensor 718/738 (Fig. 13) for determining product usage state wherein the controller 720 makes a state based selection.

As to claims 41-44, 51 and 59, Mott teaches that the product includes an internal sensor 738 derived from internal status of the product. The internal sensor 738 senses characteristics (e.g., temperature) both internal and external to the product.

As to claims 45, 47, 50 and 52-54, Mott teaches that state of use is derived from an external source (e.g., the ground) via sensor 718 during the state of a process performed by the product (e.g., used while running) which state includes vibration, mode of use, speed of use of an athletic device, and strength of stride (see also col. 11, lines 24-32).

6. Claims 48, 49 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles '255 as applied to claims 68, 69 and 71 above, and further in view of Yamamori et al.

Miles '255 teaches the product as claimed in claims 68, 69 and 71, but does not specifically teach that the product includes a player of a recorded medium, or that the medium is a compact disk, or that the surface is of a personal digital assistant.

Yamamori et al. teaches a disc player for playing an information disc. Because the information disc is digital, the disc player is a personal digital assistant.

It would be obvious to combine the teaching of Miles '255 and Yamamori et al. because both references are directed to providing displays. One of ordinary skill in the art would be motivated to make the combination because Yamamori et al. utilizes a display which is desirable to be power conserving, and Miles '255 teaches the advantage of using relatively little power (col. 3, lines 4-7).

7. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miles '255 as applied to claim 71 above, and further in view of Patrick, U.S. Patent No. 6,158,156.

Miles '255 teaches the method as claimed in claim 71, but does not specifically teach that the appearance comprises iridescence.

Patrick teaches a display (Fig. 1) whose surface 6 is coated with an iridescent layer 8 (col. 3, lines 33-40).

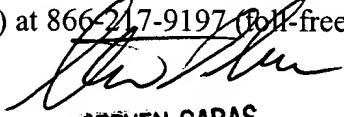
It would be obvious to combine the teaching of Miles '255 and Patrick because both references are directed to displays. One of ordinary skill in the art would be motivated to make the combination because Miles '255 teaches that the displays are light-reflective, and Patrick teaches giving displays a desired colour-effect by means of light-modifying properties of iridescent layer 8 (column 3, lines 33-40).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron S. Ward whose telephone number is (703) 305-8992. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven J. Saras can be reached on (703) 305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASW

  
**STEVEN SARAS**  
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